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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,011	01/28/2002	Michael Wayne Brown	AUS920010514US1	5546

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EXAMINER

CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
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2676

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DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,011

Applicant(s)

BROWN ET AL.

Examiner

Greg Cunningham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 9, 19 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications of amendment received 12/24/2003.
2. The disposition of the claims is as follows: claims 1-27 are pending in the application.

Claims 1, 11 and 21 are independent claims. No claims have been amended.

Specification

3. In view of the amended specification the objection to the disclosure is withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-8, 11-18 and 21-25 are rejected under 35 U.S.C. 102(a) as being disclosed by DeLeeuw, (US Patent Number 6,353,450B1).

A. Claim 1, "A method for displaying resource aids in a display area [This may be assisted through the use of colored dots attached to the user's hands or fingers or through other computer vision methods. Optionally, distinctive colors may be placed on specific objects (like fingers and thumbs, for example, or other props), to help the computer vision components of embodiments of the present invention isolate and identify objects to be recognized as input event generators. -

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col. 4, lns. 26-33; so that the user may see both layers clearly and substantially simultaneously, and interact with user interface elements in the transparent layer. – col. 4, lns. 47-49], said method comprising the steps of: displaying a user interface comprising at least one displayable object within a display area [the user interacts with display objects - col. 4, ln. 38]; and responsive to an initiating event, placing a transparent resource aid [supra: to help ...; and user may see both ...] within said display area in association with said at least one displayable object, such that said at least one displayable object is not obscured by said transparent resource aid [the image of the user is captured by the video camera and rendered in a transparent manner to the display. – col. 4, lns. 36-38]” is disclosed in col. 4, lns. 23-65.

B. Claim 2, “The method for displaying resource aids in accordance with claim 1, said method further comprising the step of: responding to said initiating event, wherein said initiating event is at least one of a cursor placement, an occurrence of a user-defined event, and a user input [Many techniques and devices for communicating input data from a user to a computer system have been developed. Keyboards, cursor movement devices (such as a mouse, trackball, and joystick, for example), pens and tablets, bar code scanners, and other devices have all been used to direct a computer to perform selected tasks. – col. 1, lns. 12-15;

The input capability of some embodiments of the present invention may be provided without any modification to existing application programs. In embodiments of the present invention, these movements may be used to direct actions within the computer system such as grasping or selecting icons, transparent controls, and other application program elements, much as the user now does with a mouse or other selection device. – col. 3, lns. 19-26

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]” is disclosed supra for claim 1. Wherein user interaction with display program or transparent user interface elements corresponds to an occurrence of a user-defined event or a user input.

C. Claim 3, “The method for displaying resource aid in accordance with claim 1, said method further comprising the step of: responding to said initiating event, wherein said initiating event is a position of a cursor over a sensitive region of said displayable object” is disclosed supra for claim 1 and in col. 3, lns. 11-42. Wherein image of user’s hands and fingers are sensitive areas for interacting with application program within the computer system such as grasping or selecting icons or transparent controls.

D. Claim 4, “The method for displaying resource aids in accordance with claim 1, said method further comprising the steps of: determining a graphical output format for said transparent resource aid; adjusting a transparency of said transparent resource aid according to user transparency preferences; determining a display position for said transparent resource aid; and adjusting said transparency of said transparent resource aid according to said display position” is disclosed supra for claim 1 and in col. 4, lns. 62-65, col. 9, lns. 32-46 and col. 18, lns. 24-29.

E. Claim 5, “The method for displaying resource aids in accordance with claim 1, said method further comprising the steps of: monitoring performance of a plurality of parts of a computer system; and compiling information for said transparent resource aid from said monitored performance for a selection from among said plurality of parts” is disclosed supra for claim 1 and in col. 3, lns. 11-42. Wherein image of user’s hands and fingers correspond to sensitive areas for interacting with application program within the computer system such as

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grasping or selecting icons or transparent controls and also correspond to monitor performance of a plurality of parts.

F. Claim 6, “The method for displaying resource aids in accordance with claim 1, said method further comprising the steps of: monitoring [This physical movement activity to create a desired result while observing the user's reflected image – col. 3, lns. 26-28; providing a transparent layer of display data signals (such as video data signals communicated by a video camera, for example) over the top of another layer of display data signals on a computer display so that the user may see both layers clearly and substantially simultaneously, and interact with user interface elements in the transparent layer. – col. 4, lns. 43-48] a plurality of transparency settings [For example, the desired level of opacity may be set for future video data signal processing. – col. 14, lns. 42-43; One embodiment comprises a method for producing transparent computer graphics layers – col. 4, lns. 54-56] for each of a plurality of displayable objects [the user interacts with display objects - col. 4, ln. 38] displayed within said user interface; and compiling information [] for said transparency resource aid [user's reflected image – col. 3, ln. 28] from said monitored transparency settings” is disclosed supra for claim 1 and in col. 3, lns. 11-42; col. 4, lns. 52-58; and col. 14, lns. 40-45.

G. Claim 7, “The method for displaying resource aids in accordance with claim 1, said method further comprising the step of: placing said transparent resource aid to maximize space remaining in said display area” is disclosed supra for claim 1 and in col. 4, lns. 52-52.

H. Claim 8, “The method for displaying resource aids in accordance with claim 1, said method further comprising the step of: placing said transparent resource aid, wherein said

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transparent resource aid comprises at least one from among text, graphics, video, and audio” is disclosed supra for claim 1 and in col. 18, lns. 37-47.

I. Per independent claims 11 and 21, these are directed to a system and program, respectively, for performing the method of independent claim 1, and therefore are rejected to independent claim 1.

J. Per dependent claims 12-18, these are directed to a system for performing the method of dependent claims 2-8, respectively, and therefore are rejected to dependent claims 2-8.

K. Per dependent claims 22-25, these are directed to a program for performing the method of dependent claims 4-7, respectively, and therefore are rejected to dependent claims 4-7.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10, 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLeeuw, (US Patent Number 6,353,450B1), as applied to claims 1, 11 and 21, respectively above, and further in view of Bagnas, (US Patent Number 5,805,163).

A. Claim 10, “The method for displaying resource aids in accordance with claim 1, said method further comprising the step of: placing said transparent resource aid in a background of said display area in association with said at least one displayable object, wherein said transparent resource aid is darkened to draw attention to said at least one displayable object” is disclosed

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supra for claim 1 and furthermore in col. 6, lns. 21-32. However DeLeeuw does not appear to disclose “placing said transparent resource aid in a background of said display area in association with said at least one displayable object, wherein said transparent resource aid is darkened to draw attention to said at least one displayable object”, but Bagnas does in col. 3, lns. 49-62.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply “placing and monitoring transparent user interface elements in a live video stream as a method for user input” in combination with “darkened transparent window overlapping an opaque window” disclosed by Bagnas, and motivated to combine the teachings because it would provide for a need for transparent windows and controls in window environments as revealed by Bagnas in col. 1, lines 55-65.

B. Per dependent claims 20 and 27, these are directed to a system and program, respectively, for performing the method of dependent claim 10 and therefore are rejected to dependent claim 10.

Allowable Subject Matter

7. Claims 9, 19 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. In view of arguments the following details are given to specifically point out the associations between given references with corresponding claims elements.

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A. With regard to [reference DeLeeuw] and claim 1, [may be assisted through ...; to help ...; so user may see both layers clearly and substantially simultaneously ...] correspond to “resource aids”; [user image rendered in a transparent manner to the display] corresponds to “transparent resource aid within display area”; [The user then interacts with display objects] corresponds to “in association with said at least one displayable object”.

B. With regard to [reference DeLeeuw] and claim 2, [The user then interacts with display objects ... for example to provide input signals and events to the system] corresponds to both “initiating event is at least one of an occurrence of a user-defined event, and a user input”

C. With regard to claim 3 and [reference DeLeeuw] given supra, claim 3 does not claim “sensitive region of said displayable object of the present invention is a region within each displayable object that when selected by user input, such as with a mouse, an initiating event is triggered”. Even still DeLeeuw is sufficiently clear for [these movements may be used to direct actions within the computer system such as grasping or selecting icons, transparent controls, and other application program elements, much as the user now does with a mouse or other selection device. This physical movement activity to create a desired result while...] such that objects and icons are sufficiently sensitive enough to be grasped or selected by these movements of the user’s reflected image creating a desired result “an initiating even is triggered”.

D. With regard to claim 5 and [reference DeLeeuw] given supra, [This physical movement activity to create a desired result while observing the user's reflected image] is very natural and intuitive for users. For example, users frequently look at reflected images of themselves in a mirror, for example, while manipulating objects with their hands without thinking very much about it. Additionally, it is typically easy for users to use either a dominant or non-dominant

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hand or both hands to perform operations while viewing their reflected image.] is just as equivalent to “monitoring performance of a plurality of parts of a computer system” as observing or monitoring the results of mouse movement or mouse clicking on objects or icons. Both user’s reflected image movement input and mouse movement input inherently involve movement tracking, speed and proper direction performance, response delay. This inherently gives a rough measure of movement tracking, speed, proper direction performance, and response delay. For example if you move left and the image goes right, directional movement is 180° out of phase; if you move quick and there is delay in the movement then there may be interrupts processing, very slow clock rate, etc. Thus [physical movement activity to create a desired result while observing the user’s reflected image] inherently gives a rough measure of movement tracking, speed, proper direction performance, and response delay, all inherent in a computer system.

E. With regard to claim 6 and [reference DeLeeuw] given supra, “monitoring a plurality of transparency settings for each of a plurality of displayable objects displayed within said user interface; and compiling information for said transparency resource aid from said monitored transparency settings” also corresponds with [In one embodiment, the user interacts with transparent user interface elements such as controls, for example, rendered transparently on the display along with the user’s reflected image. In this embodiment, a video camera captures a live video stream of a scene which includes a user. A video capture component produces a reflected video stream, based on the captured video stream, which is capable of being manipulated by an operating system or other components of the system. The reflected video stream may be augmented by placing user interface elements, such as buttons and slider bars, for example, in a transparent manner, in the frames of the video stream at selected locations. The augmented and

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reflected video stream may be displayed to the user so that the user may see himself or herself and the transparent user interface elements on the display, in addition to the existing display components. The user may then make the transparent video image of his or her hand or another object or prop, for example, move over or at least partially coincide with a transparent user interface element. Herein, "over or at least partially coinciding with" means that the representation of the object on the display at least partially occupies pixels used to represent the transparent user interface element on the display. This action may be detected by a component analyzing the video stream and may be used to enact changes to the element's appearance to indicate an activation or selection of the element. Element activation in this manner may also be used to send control messages to the operating system or an application program. – col. 3, ln. 43 – col. 4, ln. 3]. Wherein [while observing the user's reflected image] user collects "compiling" sufficient information on [transparent interface elements, selected locations, existing display components] for element activation.

- F. Claims 11 and 21 disclosed as detailed supra for claim 1.
- G. Claims 12-18 disclosed and detailed supra for claims 12-18.
- H. Claims 22-25 disclosed and detailed supra for claims 4-7.
- I. With regard to claim 10 and [reference DeLeeuw] given supra, "placing said transparent resource aid in a background of said display area in association with said at least one displayable object, wherein said transparent resource aid is darkened to draw attention to said at least one displayable object"

Given how DeLeeuw discloses "transparent resource aid" [user's reflected image and transparent elements and controls] and [allowing transparent display components overlaying

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background windows - col. 6, lns. 21-32] and how Bagnas discloses darkening of a transparent window overlaying a background window, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply user's reflected image and transparent elements and controls and allowing transparent display components overlaying background windows disclosed by DeLeeuw in combination with darkening of a transparent window overlaying a background window disclosed by Bagnas, and motivated to combine the teachings because it would just yield a darkened opacity for the desired level of opacity as revealed in col. 14, lines 42-43 by DeLeeuw.

J. Claims 20 and 27 disclosed and detailed supra for claim 10.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Responses

10. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 872-9314 may be used for formal communications.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Inquiries

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Cunningham whose telephone number is (703) 308-6109.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on (703) 308-6829.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

G.F. Cunningham

gfc

March 5, 2004

Matthew C. Bella

MATTHEW C. BELLA
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